

Por que estudiar magnetismo?

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EN TODOS LADOS !!!**



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Ellen Gibson's dinner party was the opening of the season. Her first dinner this particular year was so efficient! To introduce Maggie, she showed the already known friends of the family who were waiting for her in the kitchen. Among them was Mortimer Sheldrake, a lawyer who had been a childless wife for many years. Having died from a heart attack, he had been a childless wife for many years. His dinner party was a success. He had a heart and delicate features, and the child he never had. He was a deeply lonely person. Vainly, he had made his dinner party a success.

Mortimer had little hope of a child. He was close to her on that first night. He was surrounded most of the night by others equally eager to know him. He left early, his mind a whirl with plans. He had his very own.

The following morning...

Maggie received a huge bouquet of roses tied with a green velvet ribbon. A card was pinned to the ribbon with a diamond-shaped "Please accept this as a token of my deep appreciation," the card, which was signed "Mortimer Sheldrake" and in his hand as the card she could not see. He was a lawyer.

Four o'clock was the accepted time for callers and Ellen's home became a busy place to be at. There were many visitors there, who wanted to see Mortimer who had been to call that day, carrying a beautiful bouquet. When he was announced, Maggie came forward to meet him, took the flowers and asked the maid to put them in water. As she extended her hand he held it tightly and kissed it greedily. Immediately he stepped from this unassuming, old man. He was approaching fifty and the passing years and his attention to business had not been hard to him. His eyes had grown, his bags under them, his whole being he suggested and his mouth on his hand felt loose-tipped and wet. Although he did not resemble the man in the last picture of Dr. Henderson, Maggie would have run from him.

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ABSOLUT MAGNETISM.

¿Dónde encontramos materiales magnéticos?

ELECTRÓNICA



COMUNICACIONES

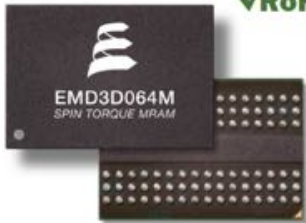


ENERGÍA



30 000 000 000 U\$D/año
(Coey 2009)

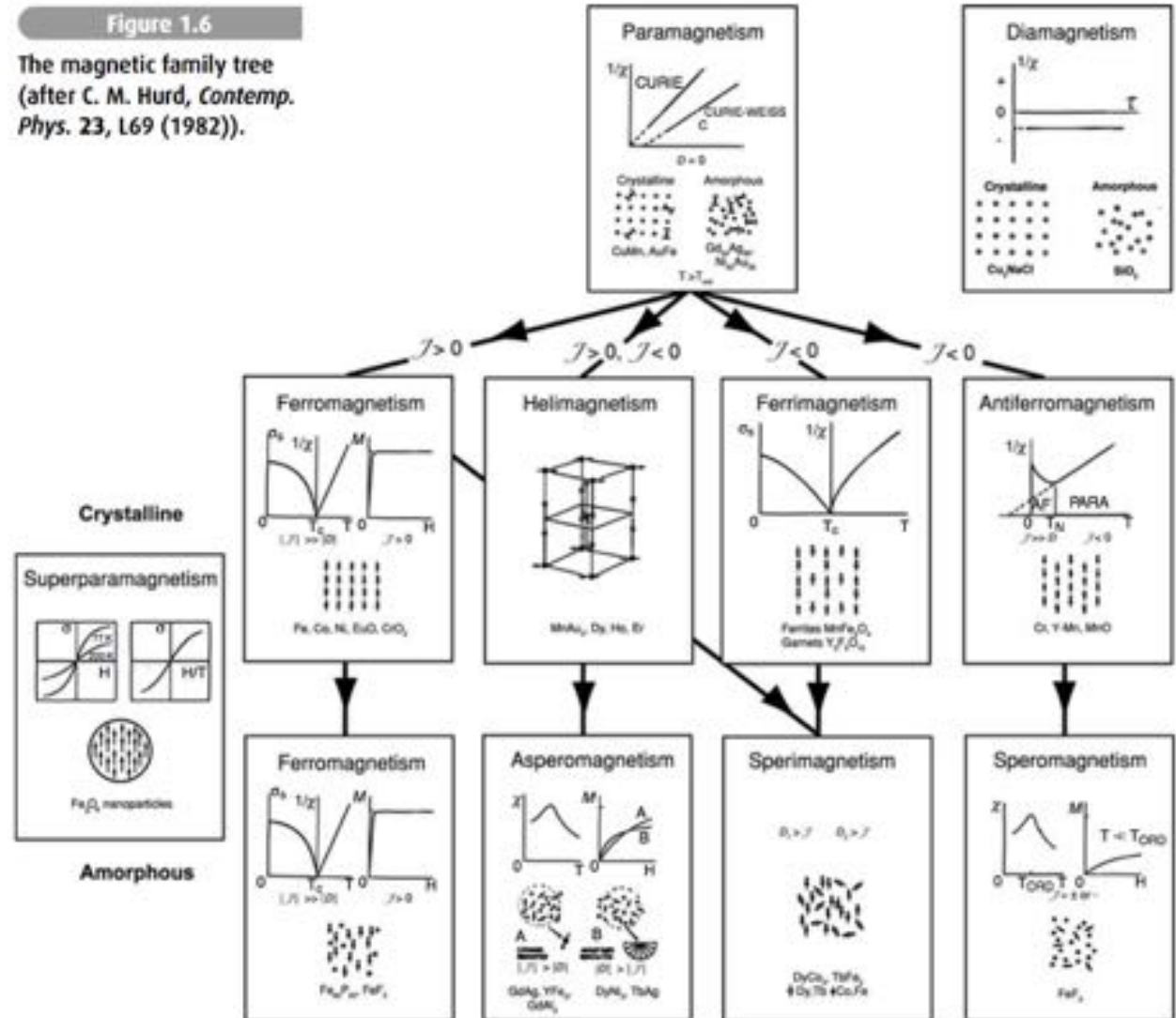
SALUD



Magnetismo en la materia:

El origen reside en el movimiento orbital (**L**) y el espín (**S**) de los electrones de un átomo $\rightarrow$ **J**

Figure 1.6
The magnetic family tree
(after C. M. Hurd, *Contemp. Phys.* 23, L69 (1982)).



Magnetómetro de Muestra Vibrante (VSM)

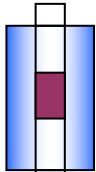


§ Ideado por S. Foner en los 50's

"Versatile and Sensitive Vibrating-sample Magnetometer."

Review of Scientific Instruments, 30.7 (1959): 548-557

Motor
(parlante)



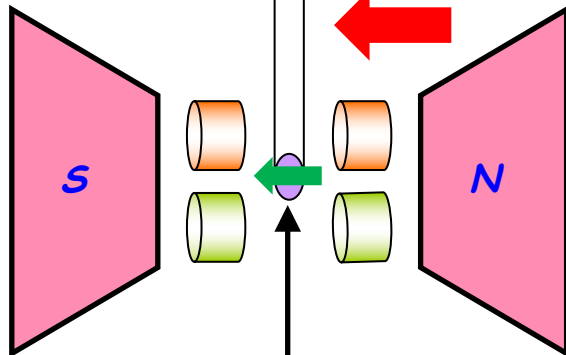
§ Se mueve la muestra en un campo uniforme.

H



§ La señal es detectada
por un juego de bobinas

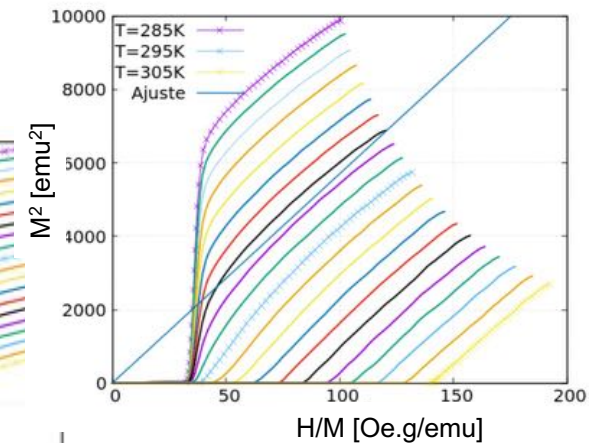
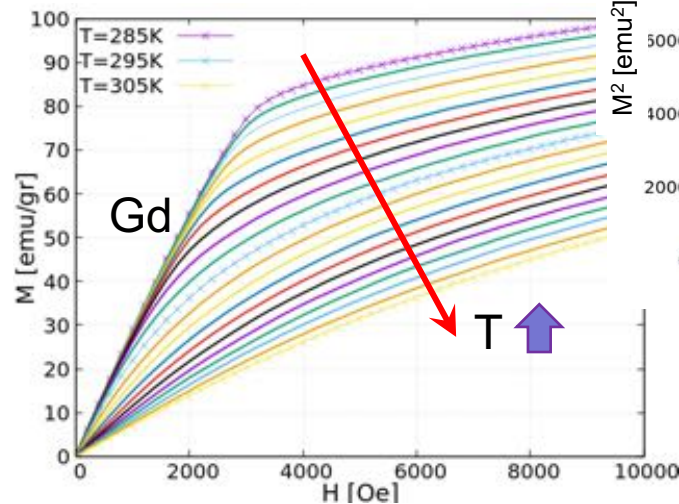
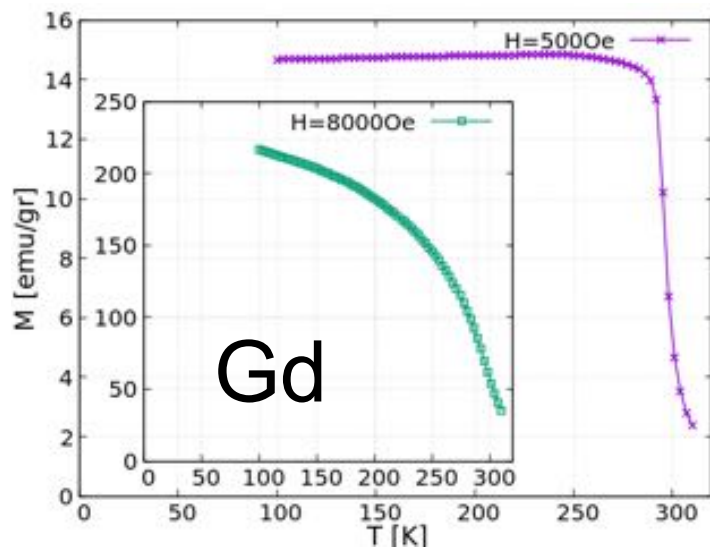
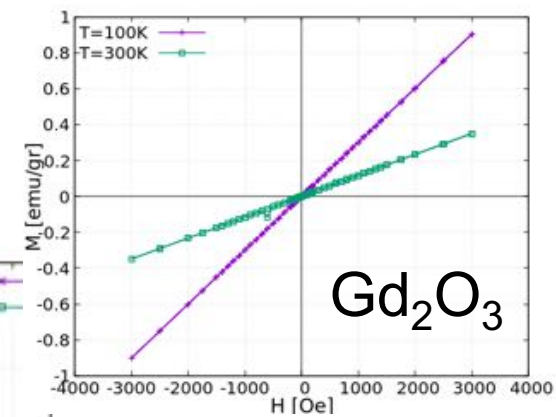
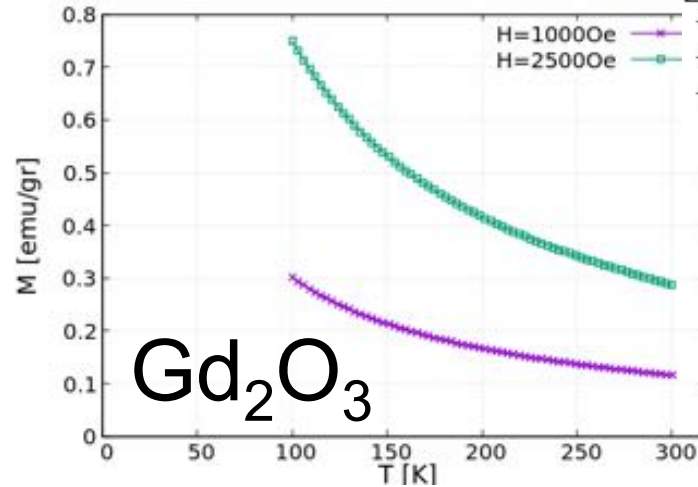
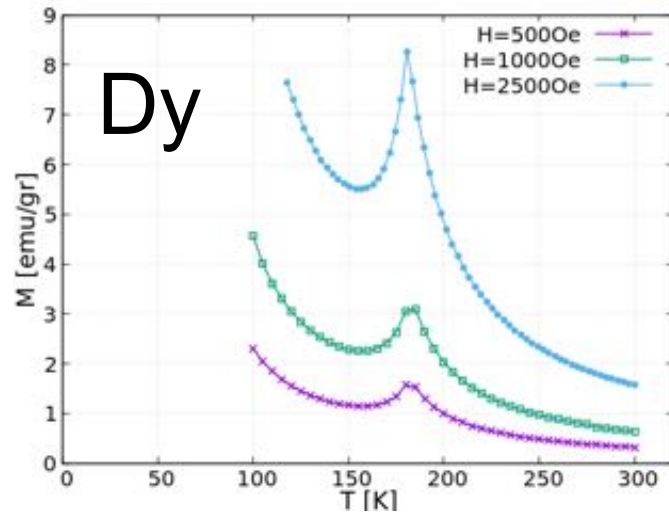
$$M \sim (d\phi/dt)$$



Muestra
(Magnetización)

§ Se puede medir $M(H, T, t)$

Algunos ejemplos:



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